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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/701,657	02/22/2001	Etsuko Himoto	43890-464	5521
20277	7590	10/07/2004		
MCDERMOTT WILL & EMERY LLP 600 13TH STREET, N.W. WASHINGTON, DC 20005-3096			EXAMINER CARTER, TIA A	
			ART UNIT 2626	PAPER NUMBER

DATE MAILED: 10/07/2004

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/701,657

Applicant(s)

HIMOTO ET AL.

Examiner

Tia A Carter

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>5</u> . | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nami et al. (US. 5162860) in view of Sugimoto et al. (US. 6274282).

Regarding claim 1, Nami et al. discloses a method of color correction for an image-outputting device for outputting an image using a combination of a plurality of coloring materials each having different constituent material (col. 1, lines 7-9), said method of color correction for an image outputting device comprising:

B) a second glossiness estimation step for estimating glossiness, for a case where two or more of said coloring materials are mixed by using the glossiness obtained for each of said coloring material (fig. 22, col. 2, lines 7-21 and lines 52-63).

D) a second relation obtaining step for obtaining a relation between a total amount of said mixed coloring materials {used for said mixed color output} and the glossiness estimated in said glossiness estimation step (fig. 3, col. 6, lines 20-22; fig. 4b, col. 7, lines 1-14).

e) a third relation obtaining step for obtaining a relation between a mixing ratio of said mixing coloring material [used for said mixed color output] and the glossiness estimated in said glossiness estimation step (fig. 5, col. 7, lines 24-40).

f) a coloring material combination determining step for determining a combination of said coloring materials with respect to variation of glossiness based on the relations obtained in said first through third relation obtaining steps (Fig. 9, col. 10, lines 10-25).

Nami et al. **does not explicitly disclose** a) a first glossiness obtaining step for obtaining glossiness of a mono-color output produced individually with each said coloring material.

Sugimoto et al. **discloses** a) a first glossiness obtaining step for obtaining glossiness of a mono-color output produced individually with each said coloring material (fig. 1, col. 3, lines 23-36)

Nami et al. **does not explicitly disclose** c) a first relation obtaining step for obtaining a relation between amount of said coloring material used for said mono-color output and the glossiness.

Sugimoto et al. **disclose** c) a first relation obtaining step for obtaining a relation between amount of said coloring material used for said mono-color output and the glossiness (fig. 1, col. 13, lines 62-67 and col. 14, lines 1-3 and Table 1, col. 14, lines 1-22).

It would have been obvious to one skilled in the art at the time of the invention to modify Nami et al. wherein the individual color toners are analyzed specifically for an accurate toner content whereas the measuring process will provide an estimated

account for the glossiness based upon each toner supplied. This process prevents defects in the actual image output wherein the image gloss may be too high or too low.

Regarding claim 2, Nami et al. discloses a method of color correction for an image-outputting device for outputting an image using a combination of a plurality of coloring materials each having different constituent material (col. 1, lines 7-9), said method of color correction for an image outputting device comprising:

B) a glossiness estimation step for estimating glossiness, for a case where two or more of said coloring materials are mixed by using the glossiness obtained for each of said coloring material (fig. 22, col. 2, lines 7-21 and lines 52-63).

D) a second relation obtaining step for obtaining a relation between a total amount of said mixed coloring materials {used for said mixed color output} and the glossiness estimated in said glossiness estimation step (fig. 3, col. 6, lines 20-22; fig. 4b, col. 7, lines 1-14).

e) a third relation obtaining step for obtaining a relation between a mixing ratio of said mixing coloring material [used for said mixed color output] and the glossiness estimated in said glossiness estimation step (fig. 5, col. 7, lines 24-40).

f) a coloring material combination determining step for determining a combination of said coloring materials with respect to variation of glossiness based on the relations obtained in said first through third relation obtaining steps (Fig. 9, col. 10, lines 10-25).

Nami et al. **does not explicitly disclose** a) a glossiness obtaining step for obtaining glossiness of a mono-color output produced individually with each said coloring material.

Sugimoto et al. **discloses** a) a glossiness obtaining step for obtaining glossiness of a mono-color output produced individually with each said coloring material (fig. 1, col. 3, lines 23-36)

Nami et al. **does not explicitly disclose** c) a first relation obtaining step for obtaining a relation between amount of said coloring material used for said mono-color output and the glossiness.

Sugimoto et al. **disclose** c) a first relation obtaining step for obtaining a relation between amount of said coloring material used for said mono-color output and the glossiness (fig. 1, col. 13, lines 62-67 and col. 14, lines 1-3 and Table 1, col. 14, lines 1-22).

It would have been obvious to one skilled in the art at the time of the invention to modify Nami et al. wherein the individual color toners are analyzed specifically for an accurate toner content whereas the measuring process will provide an estimated account for the glossiness based upon each toner supplied. This process prevents defects in the actual image output wherein the image gloss may be too high or too low.

Regarding claim 3, Nami et al. discloses a method of color correction for an image-outputting device for outputting an image using a combination of four primary printing

colors of cyan, magenta, yellow and black (col. 1, lines 7-9), said method of color correction for an image outputting device comprising:

B) a glossiness estimation step for estimating glossiness, for a case where two or more of said coloring materials are mixed by using the glossiness obtained for each of said coloring materials (fig. 22, col. 2, lines 7-21 and lines 52-63);

D) a second relation obtaining step for obtaining a relation between a total amount of said mixed coloring materials {used for said mixed color output} and the glossiness estimated in said glossiness estimation step (fig. 3, col. 6, lines 20-22; fig. 4b, col. 7, lines 1-14).

e) a third relation obtaining step for obtaining a relation between a mixing ratio of said mixing coloring material [used for said mixed color output] and the glossiness estimated in said glossiness estimation step (fig. 5, col. 7, lines 24-40).

f) a coloring material combination determining step for determining a combination of said coloring materials with respect to variation of glossiness based on the relations obtained in said first through third relation obtaining steps (Fig. 9, col. 10, lines 10-25).

g) a black mixing amount determination step for determining a mixing amount of black according to said determined combination (figs. 13-14, col. 11, lines 41-56).

Nami et al. **does not explicitly disclose** a) a glossiness obtaining step for obtaining glossiness of a mono-color output produced individually with each said coloring material.

Sugimoto et al. **discloses** a) a glossiness obtaining step for obtaining glossiness of a mono-color output produced individually with each said coloring material (fig. 1, col. 3, lines 23-36).

Nami et al. **does not explicitly disclose** c) a first relation obtaining step for obtaining a relation between amount of said coloring material used for said mono-color output and the glossiness.

Sugimoto et al. **disclose** c) a first relation obtaining step for obtaining a relation between amount of said coloring material used for said mono-color output and the glossiness (fig. 1, col. 13, lines 62-67 and col. 14, lines 1-3 and Table 1, col. 14, lines 1-22);

It would have been obvious to one skilled in the art at the time of the invention to modify Nami et al. wherein the individual color toners are analyzed specifically for an accurate toner content whereas the measuring process will provide an estimated account for the glossiness based upon each toner supplied. This process prevents defects in the actual image output wherein the image gloss may be too high or too low.

Regarding claim 4, Nami et al. discloses a method of color correction used in outputting a color image on a recording paper by superposing a plurality of coloring material (figs. 2-3, col. 5, lines 50-67), said method of color correction being characterized by controlling a total amount of said coloring materials (col. 6, lines 20-57), and comprising the steps of:

Obtaining the total amount of said coloring materials from the individual amounts of said coloring materials (fig. 3, col. 6, lines 20-22).

Adjusting the total amount of said coloring materials into a match with a threshold and adopting the threshold as a reference table value, if the threshold in the reference table value is smaller than the total amount of said coloring materials (fig. 6-7, col. 7, lines 45-66);

Adopting the total amount of said coloring materials as it is, as reference table value, if threshold is greater than the total amount of said coloring material (fig. 6, col. 8, lines 1-16).

Nami et al. **does not explicitly disclose** obtaining individual amounts of said coloring materials composing the color image.

Sugimoto et al. **discloses** obtaining individual amounts of said coloring materials composing the color image (fig. 1, col. 3, lines 23-36).

It would have been obvious to one skilled in the art at the time of the invention to modify Nami et al. wherein the individual color toners are analyzed specifically for an accurate toner content whereas the measuring process will provide an estimated account for the glossiness based upon each toner supplied. This process prevents defects in the actual image output wherein the image gloss may be too high or too low.

Regarding claim 5, Nami et al. discloses the method of color correction according to claim 4, wherein the total amount is controlled by adjusting amounts of coloring

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materials other than a coloring material of black color, in case where one of said plurality of coloring materials is black (fig. 9, col. 10, lines 10-21).

Regarding claim 6, Nami et al. discloses the method of color correction according to claim 4 further comprising the steps of:

Obtaining a distance between a coordinate point of an input color and another coordinate point black color in a color space of input color signal (fig. 17, col. 12, lines 44-59).

Obtaining a threshold from the obtained distance (fig. 17, col. 12, lines 44-59).

Controlling the total amount of said coloring materials using the threshold (fig. 17, col. 13, lines 11-21 and col. 14, lines 25-30).

Conclusion

1. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Inoue et al. (US. 6088546) and Uchinokura et al. (US. 6432589) are cited to show related art with respect to color toners and glossiness measurement for image formation.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tia A Carter whose telephone number is 703 - 306-5433. The examiner can normally be reached on M-F (7:00-3:30).

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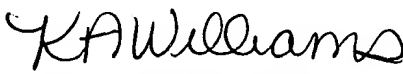
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kimberly A Williams can be reached on 703-305-4863. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



TAC
9/29/04

Tia A Carter
Examiner
Art Unit 2626


KIMBERLY WILLIAMS
SUPERVISORY PATENT EXAMINER